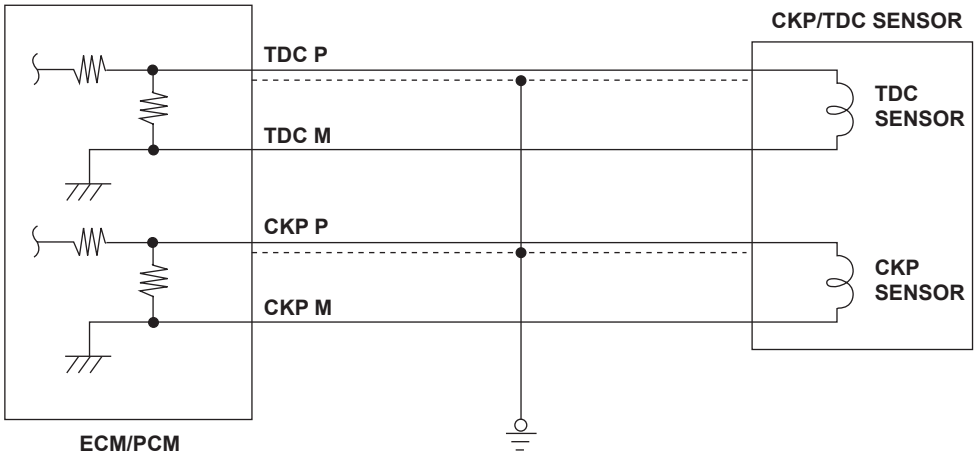
DTC P1359: Crankshaft Position (CKP)/Top Dead Center (TDC) Sensor Circuit Malfunction



P1359-9801

General Description

The crankshaft position (CKP) sensor and the top dead center (TDC) sensor each consist of rotors and pick-up coil that detects rotor position. When the rotor turns, the changes of magnetic flux in the pick-up coil are converted into pulsing signals to the engine control module (ECM)/powertrain control module (PCM). The CKP sensor detects fuel injection timing and ignition timing for each cylinder as well as engine speed. Crank angle is determined by pulses from the TDC sensor which outputs one pulse for every six pulses from the CKP sensor.
If no signals from the sensors are detected, a malfunction is detected and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	8 seconds or more
DTC Type	One drive cycle, MIL ON

Enable Conditions

Condition	
No active DTCs	CKP, TDC
Other	The engine is cranking for at least 8 seconds

Malfunction Threshold

No pulsing signal from the TDC and CKP sensor during cranking (starter signal ON) for at least 8 seconds.

Driving Pattern

Crank the engine with the starter (Ignition switch is in START position) for at least 8 seconds.

Diagnosis Details

Conditions for illuminating the MIL
When a malfunction is detected, the MIL comes on and the DTC and the freeze frame data are stored in the ECM/PCM memory.

Conditions for clearing the MIL
The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.